

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Vander Aa

Application No. Unassigned

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Art Unit: Unassigned

Examiner: Unassigned

For: METHOD OF PROCESSING A PRINTING  
PLATE MATERIAL WITH A SINGLE-  
FLUID INK

**PENDING CLAIMS AFTER ENTRY OF PRELIMINARY AMENDMENT**

1. A method of making a lithographic printing master comprising the steps of
  - providing an imaging material which comprises a lithographic base having a hydrophilic surface and a non-ablative image-recording layer which is removable in a single-fluid ink by exposure to heat or light;
  - image-wise exposing the image-recording layer to heat or light;
  - processing the material by supplying to the image-recording layer a single-fluid ink which is an emulsion of an ink phase and a non-aqueous polar phase.
2. A method according to claim 1 wherein the image-recording layer is removable with the single-fluid ink before exposure and is rendered less removable after exposure.
3. A method according to claim 2 wherein the image-recording layer comprises hydrophobic thermoplastic polymer particles.
4. A method according to claim 2 wherein the image-recording layer comprises an aryldiazosulfonate polymer.

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5. A method according to claim 4 wherein the image-recording layer is exposed to UV light.

6. A method according to claim 1 wherein the image-recording layer comprises an infrared light absorbing compound and is exposed to infrared light.

7. A method according to claim 1 wherein the single-fluid ink is an emulsion comprising a continuous ink phase comprising an acid-functional vinyl resin and a discontinuous polar phase comprising a liquid polyol.

8. A method according to claim 7 wherein the vinyl resin is a branched acid-functional vinyl resin.

9. A method according to claim 8 wherein the vinyl resin has a number average molecular weight of between about 1000 and about 15000 and a weight average molecular weight of at least about 100000.

10. A method according to claim 1 wherein the step of image-wise exposing and/or the step of processing are carried out while the imaging material is present in a rotary printing press.

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